

CLAIMS:

1. A focusing system for focusing both a parallel light beam and a non-parallel light beam through a movable objective lens onto an object, comprising:

a negative feedback loop including a detector for receiving a reflection light beam of said non-parallel light beam passed through said movable objective lens, reflected at said object and passed through again said movable objective lens, for thereby generating a detection signal corresponding to a focus deviation of said non-parallel light beam and driver means for receiving said detection signal for thereby controlling a position of said movable objective lens in accordance with said detection signal so that said detection signal is decreased; and

a correction signal generator for generating a correction signal and supplying it to said negative feedback loop as a disturbance of said loop so that said parallel light beam is focused onto said object.

2. A focusing system according to claim 1, wherein said correction signal generator is supplied with said detection signal and designed for separating a DC component and a high frequency component from said detection signal.

3. A focusing system according to claim 2, wherein said correction signal has a low frequency component of 0 to 200 Hz.

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4. A focusing method for focusing both a parallel light beam and a non-parallel light beam through a movable objective lens onto an object, comprising steps of:

detecting a focus deviation of said non-parallel light beam from a reflection light beam resulting from reflection of said non-parallel light beam at said object and passed through said movable objective lens, for thereby generating a signal indicative of said focus deviation;

displacing said movable objective lens on the basis of said detection signal indicative of said focus deviation so that said detection signal indicative of said focus deviation is decreased; and

extracting a correction signal from said signal indicative of said focus deviation and adding said correction signal to said signal indicative of said focus deviation as a disturbance to thereby cause said non-parallel light beam to be focused onto said object.

5. A focusing method according to claim 4, wherein said correction signal is derived by eliminating a DC component and a high-frequency component from said signal indicative of said focus deviation.

6. A focusing method according to claim 5, wherein said correction signal has a low frequency component of 0 to 200 Hz.

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7. An exposure apparatus focusing both a parallel light beam and a non-parallel light beam through a movable objective lens onto an object, comprising:

a negative feedback loop including a detector for receiving a reflection light beam of said non-parallel light beam passed through said movable objective lens, reflected at said object and passed through again said movable objective lens, for thereby generating a detection signal corresponding to a focus deviation of said non-parallel light beam and driver means for receiving said detection signal for thereby controlling a position of said movable objective lens in accordance with said detection signal so that said detection signal is decreased; and

a correction signal generator for generating a correction signal and supplying it to said negative feedback loop as a disturbance of said loop so that said parallel light beam is focused onto said object.

8. An optical recording system according to claim 7,

wherein said correction signal generator is supplied with said detection signal and designed for separating a DC component and a high frequency component from said detection signal.

9. An optical recording system according to claim 8,

wherein said correction signal has a low

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- 22 -

frequency component of 0 to 200 Hz.

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